

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented) A method of modifying a cornea of an eye having a main optical axis, comprising the steps of:

aiming a laser at the cornea,

firing the laser at the cornea, the laser separating the internal area of the cornea offset from the main optical axis into first and second internal surfaces to form a corneal flap, a portion of which remains attached to the cornea by an area located at the main optical axis, the first internal surface facing in a posterior direction of the cornea and the second internal surface facing in an anterior direction of the cornea, wherein a peripheral edge of the corneal flap forms an arc at least partly around the main optical axis, the peripheral edge being movable relative to the second surface,

lifting the corneal flap at the peripheral edge,

introducing an ocular implant in between the first and second internal surfaces,
and

placing the corneal flap over the ocular implant to form a new curvature for the exterior surface of the cornea.

2. (Original) A method according to claim 1, wherein
the firing step includes firing the laser at the cornea so that the corneal flap is substantially ring-shaped.

3. (Original) A method according to claim 1, wherein
the firing step includes firing the laser at the cornea so that the corneal flap is substantially arcuate.

4. (Original) A method according to claim 1, wherein
said ocular implant is a corrective lens with at least a portion having a refractive index that is different from that of the cornea.

5. (Original) A method according to claim 1, wherein the introducing step includes introducing an ocular implant that is substantially ring-shaped.
6. (Original) A method according to claim 1, wherein the introducing step includes introducing an ocular implant that is substantially arcuate.
7. (Original) A method according to claim 1, wherein the introducing step includes introducing the ocular implant so that the ocular implant at least partially encircles the main optical axis.
8. (Original) A method according to claim 1, wherein the steps of aiming and firing a laser include aiming and firing an ultrashort pulse laser.
9. (Original) A method according to claim 8, wherein the steps of aiming and firing a laser include aiming and firing a laser selected from a group consisting of a femtosecond laser, a picosecond laser and an attosecond laser.
10. (Original) A method according to claim 1, further including the steps of aiming a second laser at the cornea, and firing the second laser at an external surface of the cornea to ablate a portion of the external surface of the cornea.
11. (Original) A method according to claim 10, wherein the steps of aiming and firing the second laser at the surface of the cornea to ablate a portion of the external surface of the cornea include aiming and firing the second laser at the portion of the corneal flap that remains attached to the cornea by an area located at the main optical axis.
12. (Previously presented) A method according to claim 10, wherein

the steps of aiming and firing a second laser at the external surface of the cornea include aiming and firing an excimer laser at the cornea.

13. (Previously presented) A method of modifying a cornea of an eye having a main optical axis, comprising the steps of

aiming an ultrashort pulse laser at the cornea,

firing the ultrashort pulse laser at the cornea, the laser separating the internal area of the cornea offset from the main optical axis into first and second substantially ring-shaped internal surfaces to form a corneal flap, a portion of which remains attached to the cornea by an area located at the main optical axis, the first internal surface facing in a posterior direction of the cornea and the second internal surface facing in an anterior direction of the cornea, wherein a peripheral edge of the corneal flap forms an arc at least partly around the main optical axis, the peripheral edge being movable relative to the second surface,

lifting the corneal flap at the peripheral edge,

introducing a substantially ring-shaped ocular implant in between the first and second internal surfaces so that the ocular implant at least partially encircles the portion of the cornea that remains attached to the cornea by an area located at the main optical axis,

placing the corneal flap over the ocular implant to form a new curvature for the exterior surface of the cornea,

aiming a second laser at the cornea, and

firing the second laser at an external surface of the cornea to ablate a portion of the external surface of the cornea.

14. (Original) A method according to claim 13, wherein
the steps of aiming and firing a laser include aiming and firing a laser selected from a group consisting of a femtosecond laser, a picosecond laser and an attosecond laser.

15. (Original) A method according to claim 13, wherein
the steps of aiming and firing a second laser at the surface of the cornea to ablate a portion of the external surface of the cornea include firing the laser at the portion of the corneal flap that remains attached to the cornea by an area located at the main optical axis.

16. (Previously presented) A method according to claim 13, wherein the steps of aiming and firing a second laser at the cornea include aiming and firing an excimer laser at the external surface of the cornea.

17-22. (Cancelled)

23. (Previously presented) A method of modifying a cornea of an eye having a main optical axis, comprising the steps of

separating the internal area of the cornea offset from the main optical axis into first and second substantially ring-shaped internal surfaces to form a corneal flap, a portion of which remains attached to the cornea by an area located at the main optical axis, the first internal surface facing in a posterior direction of the cornea and the second interior surface facing in an anterior direction of the cornea, wherein a peripheral edge of the corneal flap forms an arc at least partly around the main optical axis, the peripheral edge being movable relative to the second surface,

lifting the corneal flap at the peripheral edge,

introducing a substantially ring-shaped ocular implant in between the first and second internal surfaces so that the ocular implant at least partially encircles the portion of the cornea that remains attached to the cornea by an area located at the main optical axis,

placing the corneal flap over the ocular implant to form a new curvature for the exterior surface of the cornea,

aiming a laser at the cornea, and

firing the laser at an external surface of the cornea to ablate a portion of the external surface of the cornea.

24. (Original) A method according to claim 23, wherein the steps of aiming and firing a laser at the surface of the cornea to ablate a portion of the external surface of the cornea include firing the laser at the portion of the corneal flap that remains attached to the cornea by an area located at the main optical axis.

25. (Original) A method according to claim 23, wherein
the steps of aiming and firing a laser at the cornea include aiming and firing an
excimer laser at the external surface of the cornea.

26. (Previously presented) A method according to claim 1, wherein
the peripheral edge of the corneal flap forms a substantially three hundred sixty
degree arc around the main optical axis.

27. (Previously presented) A method according to claim 1, further comprising:
firing the laser at another portion of the cornea, the laser separating another
internal area of the cornea offset from the main optical axis into third and fourth internal surfaces
to form a second corneal flap, a second portion of which remains attached to the cornea by the
area located at the main optical axis, the third internal surface facing in the posterior direction of
the cornea and the fourth internal surface facing in the anterior direction of the cornea, wherein a
second peripheral edge of the second corneal flap forms a second arc at least partly around the
main optical axis, the second peripheral edge being movable relative to the fourth surface,
lifting the second corneal flap at the second peripheral edge,
introducing a second ocular implant in between the third and fourth internal
surfaces, and
placing the second corneal flap over the second ocular implant to form a second
new curvature for another portion of the exterior surface of the cornea.

28. (Previously presented) A method according to claim 1, wherein
the arc is at least approximately ninety degrees around the main optical axis.

29. (New) A method according to claim 1, wherein
the step of lifting the corneal flap includes lifting the corneal flap, such that an
angle is formed between at least a portion of the first internal surface and a portion of said
second internal surface, said angle being at least 30 degrees and extending from about said area
located at the main optical axis and toward said peripheral edge.